

REMARKS

Summary of Amendments

Claim 1 has been amended so that the recited combination includes the processing chamber—namely the processing chamber into which the susceptor heater-block is installed, and out of which the seamless electrode leads. And since a processing chamber cannot be a constituent of a susceptor, the claimed combination has been redirected to semiconductor manufacturing equipment instead of a susceptor per se.

Claims 2-8 remain in their original form.

Claim Rejections – 35 U.S.C. § 102

Claims 1, 2, 5 and 6 remain rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Unexamined Pat. Pub. No. 2005-009740 to Ushigoe et al.

In turn, claims 1, 2, 5 and 6 remain rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,082,297 to Pollock et al.

As in Applicant's reply, dated September 18, 2007, to the final action in the previous prosecution, Applicant addresses these separate rejections concurrently.

If electrode seams or joints are present, corrosion and oxidation due to corrosive gases and oxygen arises from those regions, which has been a causative factor behind compromised integrity, and which, as noted in paragraph [0097] of the specification as filed, the present invention overcomes. That is, the present invention, as now clearly recited in claim 1, is possessed of a structure in which, within the processing chamber, there are no seams or joints in the electrodes.

Meanwhile, the Examiner asserts that in Fig. 1 of *Ushigoe et al.* there are no seams in the electrodes, yet in the detailed view that is Fig. 2, it can be clearly confirmed that the separate parts that are the electrode 8B and the clumplike terminal 5B form a seam within the chamber.

In contrast, claim 1 of the present application now recites semiconductor manufacturing equipment comprising:

- a processing chamber;
- a ceramic heater-block installed within said processing chamber;
- an electroconductive component formed in the interior and/or on the surface of said ceramic heater-block; and
- an electrode connected directly to said electroconductive component for supplying electricity thereto, said electrode having no joints or seams and being defined from where said electrode connects

directly with said electroconductive component, to outside said processing chamber.

Hence, in contradistinction to *Ushigoe et al.*, the present invention as recited in claim 1 requires that the susceptor electrode is connected directly to the electroconductive component in the susceptor's heater block, and that the electrode be seamless from that connection to outside the processing chamber, which is now positively set forth as a component of the claimed invention.

With Fig. 4 of *Pollock et al.* also, the Examiner alleges, "two seamless electrodes 79 ... are connected to ... end connector 81," yet even granting that the electrodes 79 are seamless, the electrodes 79 with the connector 81 can indeed be thought of as tantamount to seams. In *Pollock et al.*, written details are absent, and drawings in which seams are omitted are numerous, but elsewhere, in Fig. 6, a detailed schematic diagram, the seam between electrode 216 and hermetic electrical feed-through 222 is quite evident, and in detailed-diagram Fig. 8E as well, the connection with leadwire locations 556 is likewise quite plain. With *Pollock et al.*, in respect of the drawings that do not set forth details, a lack of seams is represented, yet if with the aid of the detailed diagrams one takes a closer look at the minute structure, clearly, connections are formed between the electrodes and feed-through, etc., meaning that the structure is one having seams.

In contrast, the present invention as recited in claim 1 stipulates a seamless, joint-less electrode connected directly to a susceptor's electroconductive component, the seamless, joint-less electrode being defined from its connection directly with the electroconductive component to outside said processing chamber, which is an element of the claimed combination.

In the present application, focusing attention on detailed makeup, it was discovered that a seamless structure prevents corrosion and oxidation, whereby it is possible to afford highly dependable electrode structures.

Hence, the prior art of record cannot be said to anticipate each and every element of claim 1. It is respectfully submitted, therefore, that claim 1 should be held allowable, and thus that the other claims rejected under this section of the Office action—claims 2, 5 and 6—should be held allowable as depending from an allowable base claim.

Claim Rejections – 35 U.S.C. § 103

Claims 3, 4, 7 and 8: Ushigoe et al. '740 in view of Pollock et al. '297

Claims 3, 4, 7 and 8 were rejected as being unpatentable over *Ushigoe et al.* in view of *Pollock et al.*

Further to Applicant's arguments presented above in addressing the § 102 rejections, Applicant submits that as to some combination of the *Ushigoe et al.* structure—in the lower part where it is seamless—and the *Pollock et al.* structure—in the upper part where it is seamless—inasmuch as an intention not to engender any seams whatsoever is in the first place not set forth in either reference, such that absent from either is the thinking that if seams are present corrosion will occur, or of eliminating seams with the aim of enhancing the dependability, it must be concluded that even based on a combination of each reference, the concept of a seamless electrode structure could not be publicly known.

Moreover, is respectfully submitted that for the foregoing reasons presented in addressing the § 102 rejections, the patentability of the present application rests in claim 1 to begin with, and thus in turn rests in the claims rejected under the section of the Office action here addressed—claims 3, 4, 7 and 8—such that the § 103 rejection of these claims is overcome.

Conclusion

Accordingly, Applicant courteously urges that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

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